



Case Study 1

Multi-Region HA Database with Observability

Scenario

“A global e-commerce client relied on a single-region database. The system supported thousands of daily transactions, but even short outages risked lost sales and poor customer trust.”

- ▶ Single database in one region.
- ▶ No automatic failover.
- ▶ Limited monitoring and alerting.



Challenges

- ▶ Downtime risk → A single regional outage would take the entire business offline.
- ▶ Revenue impact → Every minute of downtime = lost transactions and customer churn.
- ▶ No early warning → Issues were discovered only after failures occurred.
- ▶ Operational stress → Engineers relied on manual intervention during incidents.

Proposed Solution

“We recommended a resilient database architecture with proactive monitoring to minimize downtime and safeguard business continuity.”

Architecture Recommendation:

- ▶ Deploy multi-region replicated database clusters.
- ▶ Enable automatic failover to secondary region in case of primary outage.
- ▶ Add Prometheus + Grafana observability stack for real-time health metrics.

Expected Business Outcomes

- ▶ 99.99% uptime → Business continuity even during outages.
- ▶ Proactive detection → Issues spotted early with monitoring dashboards.
- ▶ Reduced revenue risk → Transactions protected from downtime losses.
- ▶ Executive confidence → Clear resilience strategy communicated to stakeholders.